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ABSTRACT

A study attempted to determine the stability of the occupational aspirations of young adults, using data from the High School and Beyond study. (Data for that study had been gathered from seniors who graduated from high school in 1980 and were followed up in 1982, 1984, and 1986). About 9,400 subjects were used in the descriptive research. Analysis of the subjects' changes in occupational aspiration during this 6-year period revealed only modest trends toward greater aspirational stability over time. More strikingly, various analyses of the data failed to delineate clear patterns in changes to occupational aspiration. These findings tend to question the theoretical notions that occupational aspiration stabilizes with the experience of maturation of youth and young adults. Attributes such as aptitude and socioeconomic status did not seem to have significant influences on the stability of the young people's occupational aspiration. The greatest influence seemed to be the subjects' environment and their adaptation to changing environmental circumstances. The survey concluded that mind-changing seems to be endemic in this age group and that students, parents, and mentors should be wary of acting upon aspirations prematurely formed. The study also posed the question of the relationship between occupational aspiration stability and occupational success as a subject for future research. (37 references and 9 tables) (KC)

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The Stability of Occupational Aspirations of Young Adults

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Introduction

Graduation from high school in America signals the beginning of the passage from adolescence to adulthood. Individuals making this transition are accorded various rights and are expected to meet responsibilities commensurate with their new social status. Among the many cultural expectations for youth at this stage of development is the choice of a post-high school activity: going to work, joining the military service, or pursuing further education and training.

A number of developmental theorists have questioned the capacities of youth to make occupational choices to which strong commitments are attached. Erikson (1970) observed that many young people have difficulty in forming initial blueprints for their future following high school. Super (1974) argued forcefully that persons in their youth do not possess the vocational maturity that allows for such commitment. Chickering (1969) and Heath (1965) contended that major dimension of maturation is the formulation of a clear sense of occupational and educational direction and purpose. Perry's (1970) scheme of cognitive development in college students, specifically as adapted to career development by Knelfelkamp and Slepitza (1976), argued that the dualistic thinking patterns of many young adults interferes with their capacities to form commitments to decisions and choices (including occupational choices) that can be characterized by strength and resilience.

Many researchers have attempted to ascertain the consistency of actual educational and occupational attainments, given certain aspirations expressed by youth during high school. Studying

individuals only six months following graduation from high school, Porter (1954) reported an 80 percent consistency rate between aspiration/expectation and actual attainment. Although using a similar followup period, Schmidt and Rothney (1955) found a consistency rate of 67 percent between expressed post-high school plans and attainments. Astin and Myint (1971) reported consistency rates of 50 percent following five years after high school completion. Ten-year followup studies indicate considerable declines in consistency rates between aspiration and attainment to 25 percent (Kuvlesky and Bealer, 1967) and only 15 percent (Kohout and Rothney, 1964).

Other researchers have attempted systematic investigations of stability of occupational aspiration of youth and young adults. This body of literature indicates consistently that there exists marked instability of occupational aspirations among youth throughout the high school years. Gribbons and Lohnes (1968) reported that as many as half of the senior subjects in their longitudinal study were categorized as "career immature." Another study which has received considerable attention in its examination of the career maturity of high school students was the longitudinal investigation reported by Jordaan and Heyde (1979). They reported findings that fewer than five percent of their subjects in their senior year had plans for their post-high school activities that were thoroughly considered. They also reported that two-thirds of the seniors in their sample had little confidence in or commitment to their educational and occupational goals.

Other investigations of the influences on college attrition have tended to confirm Tinto's (1975) emphasis of the importance of "goal commitment" to models to explain decisions to dropout of college. The

centrality of "goal commitment" in attrition research in postsecondary education has been confirmed repeatedly with traditional college students (see Pascarella and Chapman, 1983a, 1983b, 1983c), as well as with diverse college student populations: with disadvantaged students (Fox, 1985); with minority (Hispanic) students (Nora, 1986); and with students enrolled in two-year, occupationally-oriented post-secondary programs of study (Pratt, 1988).

Attempts to identify the influences on the aspirations of youth owe a great deal to the ground-breaking efforts conducted by Blau and Duncan (1967), by Rehberg, Sinclair, and Schafer (1970), and by Sewall and Hauser (1972, 1974). Adopting a sociological and psycho-social framework instead of a developmental perspective, these inquiries attempted to construct a path model that explained educational and occupational attainments of youth.

The Blau-Duncan variation of the model focused on the contributions of parental, particularly fathers', educational and occupational attainments as the predominant predictor of the aspirations of youth (Blau and Duncan, 1967). Sewall and Hauser (1972, 1974) constructed a multi-stage path model to explain and predict educational and occupational aspirations of high school seniors. The first stage of their model included parental educational levels and income (or socioeconomic status). The scholastic ability and academic performance during the high school years constituted the second stage of their path model. The final exogenous stage in their model incorporated the influences of parental and teacher encouragement, and peer influences. Resultant educational and occupational goals were viewed as the direct predictors of educational and occupational

attainments of high school seniors (see also Jencks, et al., 1983; Rehberg, et al., 1970). Influences on the aspirations of youth reported by other researchers include parental and others' influence (Picou and Carter 1976; Davies and Kandel, 1981; and Smith, 1982), urbanicity (MacBrayne, 1987), and sex (Marini, 1978; Cosby, 1978; Peterson, et al., 1982; and Maxwell and Cumming, 1988).

The research reported by Gottfredson (1979) warrants special review in any examination of the stability of aspirations of young adults. Using a cohort longitudinal design of 3700 young white males aged 14 to 24 years, Gottfredson examined the effects of age (and presumably maturation) on the congruence between occupational aspirations projected by subjects for age thirty of her subjects and their actual occupational attainments. She hypothesized that this degree of congruence between aspiration and actual employment would increase with age.

The subjects in her study were interviewed each year during the period 1966 to 1971, thereby providing a snapshot of development in this area of fourteen years (ages 14 through 28). Subjects were asked in the interview about the kind of job they wanted to have at age 30 and the kinds of employment they had experienced since the last interview. Congruence was then constructed as a dichotomous measure between occupational aspiration and circumstances of employment.

Gottfredson found that the degree of congruence between occupational aspiration and actual occupational attainment increased regularly with age. During the post-high school years, the percentage of men employed in jobs congruent with their aspirations rose from 43 percent at a point immediately following completion of high school to

84 percent for her oldest subjects. She also found marked stabilization of occupational aspiration in her subjects following the high school years.

There exist in Gottfredson's research three limitations that generally characterize other research investigating the stability of occupational aspirations of youth and young adults. First, her inclusion of only white males in her sample seriously diminishes the generalizability of the results of her study. Second, her findings were constrained by her inability to track a panel of subjects following completion of high school. Third, her reliance on a dichotomous measure of congruence between aspiration and attainment hinders interpretation of her findings.

The nationally representative High School and Beyond Longitudinal Study of 1980 (HSB) provides a unique opportunity to redress these limitations in research regarding the stability of occupational aspirations of youth and young adults during the six years following their completion of high school. First, HSB includes a panel study of individuals completing high school in 1980, followed up by surveys in 1982, 1984 and 1986. This design affords researchers a chance to follow longitudinally a group of specific individuals during the period in their lives identified by theorists to be central in the formulation and stabilization of occupational aspirations. HSB also includes an array of questionnaire items that allows inclusion of many variables previously overlooked in related investigations but which are central to the developmental theory in this area.

Using the High School and Beyond data, the present study sought first to describe the extent to which the occupational aspirations of

young adults were stable during the six years following completion of high school. Second, the study attempted to determine how much of the aspirational stability/instability that was observed could be explained by a variety of factors: sex, race, urbanicity, aptitude, socioeconomic status, college attendance, service in the armed forces, self-concept, locus of control, and influences by parents and others.

The first part of the study was essentially descriptive. It examined the patterns of aspirational stability of the subjects during the six-year period of data collection. The stability of occupational aspiration for each two-year period (1980--1982, 1982--1984, 1984--1986), as well as a cumulative six-year measure of aspirational stability, was studied. Additionally, the extent to which subjects maintained levels of aspirational stability, stabilized their aspiration, or expressed increasingly unstable aspirations was examined during the three points of data collection following completion of high school (1982, 1984, and 1986). The second part of the study involved construction of multiple regression models to explain the variability in the accumulative (1980--1986) measure of aspirational stability. Independent variables in the model included aptitude, socioeconomic status, number of months of college attendance, number of months of service in the armed forces, parental influence, personality characteristics (self-concept and locus of control), urbanicity, and race. In view of Gilligan's (1982) contention that developmental processes are distinct between males and females, separate regression models were also constructed for male and female subjects.

Method

The HSB data base is from a nationally representative sample of 1980 high school sophomores and seniors in the United States; only the senior data were used in the present study. The base-year (1980) HSB survey included a highly stratified national probability sample of over 1,100 high schools with 36 seniors per school (in schools selected with fewer than 36 seniors, all eligible students were included in the sample). Over 28,000 seniors enrolled in 1,015 public and private high schools participated in the base-year data collection. The sample represents a projected population of approximately 3,040,000 seniors in more than 21,000 schools in the spring of 1980. Followup questionnaires were administered to a panel of 11,995 subjects selected from the seniors completing the 1980 base-year survey during the springs of 1982, 1984, and 1986, resulting in return rates of 94, 91, and 88 percent, respectively (National Opinion Research Center, 1987).

The primary advantage of using the High School and Beyond Data to examine the stability of occupational aspiration of youth and young adults is that it offers the researcher a large, nationally representative panel of individuals surveyed longitudinally for six years. For this reason, only subjects who participated in the base-year survey and in the subsequent followup surveys in 1982, 1984, and 1986 were included in this study. This sampling decision generated 9,376 subjects for the present study, or 78.2 percent of the total HSB Senior Panel.

The deliberate oversampling of certain types of schools and students conducted by HSB was compensated by a weighting scheme included in the data base. These weights were based on the inverse of

the probabilities of selection through all stages of the sampling process and on nonresponse adjustment factors computed within cells. In all cases the weights were calculated to project to the population of approximately 3,040,000 1980 high school seniors. Without the weighting the 9,376 subjects of this study (those subjects participating in all years of HSB data collection) would not be representative of the population of 1980 high school seniors.

Use of the weighting scheme, however, would have involved data from more than 3 million high school seniors, making any differences observed in the data statistically significant (management of such a large data file would have also placed a burden on most computer hardware). This problem was resolved methodologically by creating a derived weighting system for subjects by first determining the mean weight of the 9,376 subjects participating in all four surveys and then dividing the furnished sample weight for each subject by that mean:

Derived Weight = Sample Weight/Mean Weight.

Use of this derived weight allowed for reduction of numbers of subjects from 3,040,000 to the original 9,376 while maintaining the desired population proportions in the new sample.

The resultant weighted sample comprised 4,581 male and 4,795 female subjects (48.9% and 51.1%, respectively). Since race was employed as a dummy variable in the regression models in the study, it was dichotomized for all subjects as white and non-white: 77.5% (n = 7,267) of the subjects were white and the remaining 2,109 subjects were non-white. A trichotomous urbanization code (urban, suburban, and rural) was assigned to the high school of each subject in the HSB data. This measure of urbanicity was used as a surrogate for subjects'

urbanicity. 1,850 (19.7%) of the subjects attended urban high schools; 4,598 (49.0%) attended suburban schools; and 2,928 (31.2%) attended rural schools.

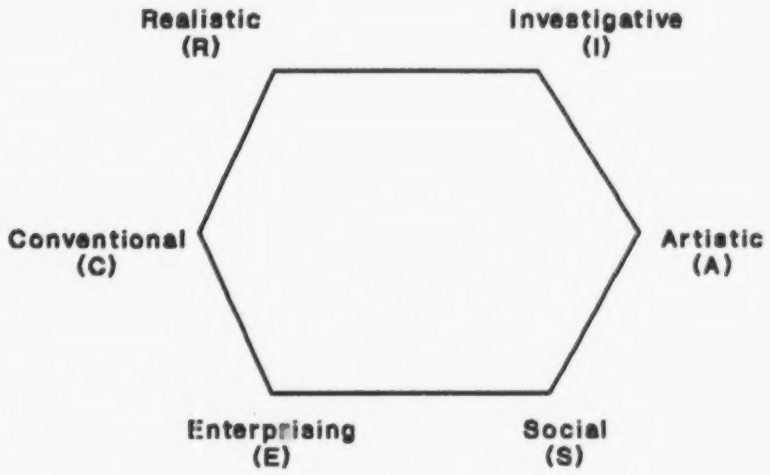
Other variables from the HSB data included in the study were aptitude (as measured by subjects' performance on a multi-scale cognitive test administered during the base-year survey in 1980); socioeconomic status (based upon subjects' parents' education, occupation, and income); number of months in attendance in postsecondary schooling during the periods 1980--1984; and number of months of service in the armed services during the period 1980--1984. Additionally, two six-item scales assessing subjects' self-concept and locus of control during the 1986 followup survey were included in the study (Cronbach Alphas for each of these scales were computed to be .85 and .64, respectively).

Measures of parental and others' influence were created by summing subjects' responses to survey items asked during the 1980 survey year regarding the extent to which their mother and father (parental influence) and friends, relatives, teachers, counselors, and college and military recruiters (others' influence) affected the formulation of their post-high school plans. The internal consistency (Cronbach's Alpha) of these composite variables were computed to be .72 and .57, respectively.

Unlike previous research which dichtomized aspirational changes ("change" or "no change"), aspirational stability scores developed for this study sought to quantify aspirational change on an ordinal scale. In the base-year survey, and in each of the 1982, 1984, and 1986 followup surveys, subjects were asked to indicate from fifteen

categories the occupation they expected or planned to have when they were thirty years old. These fifteen response categories were collapsed into six different groups using Holland's (1973) typology of occupations: Artistic, Conventional, Enterprising, Investigative, Realistic, and Social. Holland also placed these occupational types on the points of a hexagon based upon his notion of the similarity and differences among the six types (see Figure 1).

Figure 1. Holland's Hexagon Typology of Occupations



Types adjacent on the hexagon (e.g. Enterprising with Social, Conventional with Realistic) are substantially more alike than types across the hexagon (e.g. Artistic versus Conventional).

Holland's scheme was employed in this study to measure aspirational change. For example, during the period 1980--1982, subjects changing their aspiration from counselor to teacher (a change occurring within the same Holland type--Social) were considered to have greater stability of aspiration than other subjects changing their

aspiration from, for example, counselor to mechanic (a change from the Holland type Social to Realistic). Subjects reporting no change during one of these two-year survey intervals were assigned stability scores of "0;" changes within the same Holland type were assigned scores of "1;" changes to types adjacent on the hexagon were assigned scores of "2;" changes to oblique types (i.e. neither adjacent nor opposite) were assigned scores of "3;" and changes of aspirations to opposite types were assigned stability scores of "4." Table 1 provides the aspirational stability scoring matrix used in the study.

Insert Table 1 About Here

In addition to constructing aspirational stability scores for each of the two-year intervals in the HSB data (1980--1982, 1982--1984, and 1984--1986), a cumulative measure of the aspirational stability of subjects was computed by summing each subject's aspirational scores for the six-years of the study. A reliability coefficient of .43 for internal consistency of this composite variable (Cronbach's Alpha) was obtained. Not surprisingly in a longitudinal study spanning six years with more than nine thousand subjects, subjects missing data presented a problem. Although no subject in the sample was missing data on sex or race, as much as 22.5 percent of the subjects did not have data on the 1986 locus of control measure; 14.4 percent were missing data on the self-concept measure; and 11.4 percent were missing data on the measure of aptitude. Additionally, 10.8 percent of the sample were missing data on the accumulative measure of aspirational stability.

Examination of patterns in missing data in the sample revealed that non-white, male subjects with fewer months of college attendance, and with lower aptitude and socioeconomic scores tended to be underrepresented. These findings identify serious limitations to the generalizability of results from this study.

The first set of analyses of the data comprised descriptive investigations to ascertain the extent to which occupational aspirations of the panel were stable during the sex years following completion of high school. Patterns of stabilization and destabilization of occupational aspirations were also examined during the longitudinal intervals 1980--1982 to 1982--1984 and 1982--1984 to 1984--1986. Differences on the accumulative measure of aspirational stability (1980--1986) by sex, race, and urbanicity were conducted. Bivariate relationships between accumulative aspirational stability and aptitude, socioeconomic status, months in attendance in college, military experience, and parental and others' influence were also computed.

A second set of analyses sought to determine how much of the variability in the accumulative measure of the stability of occupational aspirations could be explained by race, urbanicity, aptitude, socioeconomic status, months of college attendance, military experience, parental influence, and others' influence. Since no theory or prior research reviewed for this study suggested any specific order of independent variables in the model, the dependent variable was regressed simultaneously on all of the independent variables. In view of the theoretical contentions of Gilligan (1982) that developmental processes of males and females should be viewed as distinct, separate

models for male and female subjects, as well as a model for all subjects, were constructed.

Tests for linearity, multicolinearity of the independent variables, and for normality, independence, and homoscedasticity of the residuals were performed. In all cases, these tests revealed no violations to these assumptions of regression analysis.

Results

During each of the two-year intervals of the study (1980--1982, 1982--1984, and 1984--1986) approximately the same proportion of subjects experienced the five categories of aspirational stability (scores of 0, 1, 2, 3, and 4). Almost 40 percent of subjects retained the same aspiration during the period 1980--1982 (compared to 43.1% and 43.6% during the periods 1982--1984 and 1984--1986, respectively). Approximately 13 percent reported aspirational instability within the same Holland type (scores of "1") during these three 2-year intervals. Maximum aspirational instability during these periods were reported only by approximately 5 percent of the sample (see Table 2).

Insert Table 2 About Here

These findings raise the question: are the subjects registering "no change" in their occupational aspirations during each of these two-year intervals the same subjects? Table 3 describes the proportion of subjects whose occupational aspirations stabilized over time with those whose aspirations became more unstable. Values in the table were computed as follows: if a stability score computed for the period

1980--1982 was greater than the stability score computed for 1982--1984, then there was evidence of aspirational stabilization (the reader will recall that low scores indicate stable aspiration; high scores indicate unstable aspiration). Similarly, if the 1980--1982 stability score was less than the 1982--1984 score, there was evidence of a reduction in aspirational stability (i.e. an increase in instability). Equal stability scores for the two periods indicated no change in aspirational stability -- or the maintenance of high or low aspirational stability. Values for the period 1982--1984 to 1984--1986 were computed in the same manner.

Insert Table 3 About Here

The first row in Table 3 summarizes the subsequent aspirational stability of the 3,471 subjects whose occupational aspiration stability scores did not change in the longitudinal interval 1980--1982 to 1982--1984. Of these 3,471 subjects, 1,740 (or 50.4% of the row total) maintained the same aspirational scores during the longitudinal interval 1982--1984 to 1984--1986, as well as the longitudinal interval 1980--1982 to 1982--1984. Additionally, 845 subjects (or 24.3% of the row total) stabilized their occupational aspiration during the 1982--1984 to 1984--1986 interval.

The crosstabulation provided in Table 3 furnishes a useful summary of aspirational stability migration trends in the sample for the entire six years of the study in two-year longitudinal snapshots. Proportions of subjects moving from the category "no change" during the interval 1980--1982 to 1982--1984 into increased and decreased aspirational

stability in the period 1982--1984 to 1984--1986 are roughly equivalent (24.3% versus 25.3%). Proportionately more subjects moved from increases in aspirational stability during the first interval into "maintenance" of stability levels (44%), than moved from decreases in aspirational stability in the first interval to "maintenance" (35.2%). Similarly, while 42.4 percent of the subjects moved from a stabilizing circumstance in the first longitudinal interval to increased instability in the second interval, 53.4 percent of the subjects "improved" their aspirational stability situation by moving from decreased aspirational stability (in the 1980--1982 to 1982--1984 period) to an increased aspirational stability situation later on. Finally, although only 13.6 percent of the sample continued to experience stabilized aspirations from the first interval to the second, proportionately fewer subjects (11.4%) continued their pattern of destabilized occupational aspirations.

The aspirational stability trends summarized in Table 3 are not striking, although they do identify a tendency toward aspirational stabilization in most subjects over time. Clearly, an overall movement towards aspirational stability over time appears in the data. However, there is a more salient finding: the documentation of widespread aspirational mind-changing in young adults during the six years following completion of high school. Additionally, the data do not point cleanly to a set of patterns in the changes, certainly not to ontogeneous movement toward greater aspirational stability with the passage of time. While the changes in the stability/instability of occupational aspiration observed in the sample were not likely to be entirely random, the data examined in these tables fell short of

providing adequate explanation of the variability that was observed. Inspection of the accumulative measure of aspirational stability offers useful clarification of this finding; it is discussed below.

Only 1,191 (14.2%) subjects maintained the same occupational aspiration during the six-year period, 1980--1986 (see Table 4). More than half of the sample (4,348 or 52%) obtained accumulative stability scores of 4.0 or more during the six-year period. Indeed, the modal score of this measure was 4.0. 2,380 subjects (25% of the total sample) reported the same occupational aspiration in 1980 as they did six years later in 1986. Further analysis indicated that of this group of subjects, only half of them obtained an accumulative aspirational stability score of" 0" (signifying no change in aspiration). Nearly 11 percent (259 subjects) obtained an accumulative score of "2;" 917 subjects (38.5%) of the group of 2,380 subjects with the same 1980 and 1986 aspirations) obtained accumulative stability scores of "4" or more. Very clearly, a substantial number of subjects experienced considerable mind-changing during the six years following completion of high school, even though they returned to the same or a similar aspiration first recorded in the data in 1980. The accumulative measure of aspirational stability, therefore, would seem to be a useful indicator of this aspect of subjects' post-high school development.

Insert Table 4 About Here

Comparisons of the mean accumulative stability of males and females, whites and non-whites, and subjects from urban, suburban, and

rural communities were conducted to determine if differences existed among subgroups of the sample in the accumulative measure of aspirational stability. Additionally, bivariate relationships between accumulative aspirational stability and aptitude, SES, college attendance, military experience, self-concept, locus of control, parental influence, and others' influence were computed to determine its relationships with those variables.

No differences were observed in aspirational stability by sex, although white subjects possessed significantly greater accumulative aspirational stability than non-white subjects (3.63 for whites versus 4.09 for non-whites). The means of the accumulative aspirational stability for subjects from urban, suburban, and rural communities did not differ in a oneway analysis of variance. Results of these tests are outlined in Table 5.

Insert Table 5 About Here

Bivariate relationships between aspirational stability and aptitude (-.20), SES (-.13), college attendance (-.28), and locus of control (-.11) were found to be modest and inverse. Although there existed statistically significant relationships between aspirational stability and military experience (+.05), self-concept (-.05), and parental influence (-.07), these relationships were considered to have little practical importance. No statistically significant relationship between accumulative aspirational stability and others' influence was observed. These bivariate relationships are summarized in Table 6.

Insert Table 6 About Here

The predominantly inverse relationships described in Table 6 can be understood more clearly by recalling the coding scheme used in the stability scores comprising the accumulative measure of aspirational stability. Complete aspirational stability was coded "0;" complete instability of aspiration was coded "4." These relationships described in Table 6 indicate that high degrees of aspirational stability (i.e. low scores on the accumulative measure) associate with high scores in aptitude, SES, and locus of control and large numbers of months in attendance in college.

Multiple regression analysis was employed to determine how much of the variability in the accumulative measure of aspirational stability could be explained by the following variables: aptitude, SES, college attendance, military experience, self-concept (the 1986 measure), locus of control (the 1986 measure), parental influence, others' influence, urbanicity, and race. In the model pertaining to all subjects, months of college attendance, aptitude, and parental influence contributed significantly to the reduction of unexplained variance in accumulative aspirational stability. In all cases, the regression coefficients were inverse, consistent with the bivariate relationships between these independent variables and the dependent measure reported in Table 6. The resultant r-squared for this model was .084 with a standard error for the model of 2.47. Table 7 summarizes the results of the simultaneous entry of all independent variables in the model for all subjects.

In view of the finding that months of college attendance had the strongest bivariate relationship with the accumulative measure of aspirational stability (-.28) its emergence as the best predictor of the dependent measure is not surprising. Additionally, the correlation between aptitude and college attendance (+.51) likely accounts for the weak contribution of aptitude to the reduction of unexplained variance in the dependent measure, controlling for college attendance. Only 8.4 percent of the variability in the measure of accumulative aspirational stability could be explained by the independent variables. The standard error of the model, 2.47, confirms the "looseness" of the model's predictive power.

Insert Table 7 About Here

The regression model constructed for male subjects differed somewhat from the model constructed for all subjects: only months of college attendance, aptitude, parental influence, and race contributed significantly to the reduction of unexplained variance in accumulative aspirational stability. The resultant R-square for this model was .063 with a standard error for the model of 2.57. Table 8 summarizes the results of the simultaneous entry of all independent variables in the model for male subjects. Once again, only college attendance added substantially to the prediction of aspirational stability. And, once again, the regression model failed to explain much of the variability in the dependent measure; the model for male subjects resulted in an R-square of only .063.

Insert Table 8 About Here

The role of the independent variable race (coded non-white = 0; white = 1) in the model is interesting. Recalling that this dichotomized variable revealed significant bivariate differences in the accumulative aspirational stability measure (with whites' accumulative stability of occupational aspiration greater than non-whites; see Table 5), this same result is carried forth in the regression model for male subjects controlling for the influence of college attendance, aptitude, and parental influence. The effect of race in the model for male subjects is further explained by a comparison of the number of months of college attendance by race. In a t-test for all subjects the mean number of months of college attendance was 17.9, compared to a mean of non-white of 14.3 (this result was statistically significant, $p < .0001$). A separate comparison was conducted for male subjects with nearly identical results. That test showed a mean number of months of college attendance for whites to be 17.5, compared to a mean for non-white subjects of 14.0 ($p < .0001$).

The regression model for female subjects accounted for an R-square of .119 in the dependent measure. In this model months of college attendance, aptitude, and military experience contributed significantly to the reduction of unexplained variance. The standard error for the model was 2.37 (see Table 9).

Insert Table 9 About Here

The role of aptitude, while statistically significant, added negligible explanatory capacity to the model developed for female subjects. Unlike the model for all subjects and the model for males in the sample, the variable measuring parental influence did not contribute significantly to the reduction of unexplained variance in accumulative aspirational stability. The presence of military experience as a significant predictor of accumulative aspirational stability may well have been due to statistical artifact. Of the total 4,795 female subjects in the sample, only 84 (1.8 percent) had any military experience. The mean number of months of those women who had served in the military was 22.1 months, compared to the mean number of months for the entire subgroup of female subjects of .39 months. A t-test was conducted to compare the mean accumulative aspirational stability for female subjects with military experience to female subjects who had not served in the military. The former group of 4,795 subjects had a mean accumulative aspirational stability of 3.67 ($s = 2.52$), compared to the mean of women with military experience of 5.07 ($s = 1.8$). Tests to determine equality of the variances and the means of these two groups of female subjects resulted in differences that were significant at the .001 level ($F = 1.91$; $t = -6.57$). These analyses indicated that the influence of military experience in the regression model for female subjects was as likely due to this imbalance of military experience (and the effect of that imbalance on accumulative aspirational stability) as to a genuine influence on the dependent measure by military experience. At the very least, the influence of military experience on the accumulative aspirational stability in female subjects, controlling for the influences of college

attendance and aptitude, is statistically significant, but difficult to interpret.

Comparisons of the regression models for male and female subjects (Table 8 and Table 9, respectively) did not support the extrapolation of Gilligan's (1982) argument to career development that use of the same developmental frameworks for males and females is not consistent with the disparate perspectives and cultural presses on the sexes. Excluding the statistically significant but negligible contributions of aptitude, parental influence, and race to the model for male subjects and of aptitude and military experience to the model for female subjects, only the number of months of college attendance proved to be useful predictors of accumulative aspirational stability for male and female subjects. However, the magnitude of influence of college attendance, as indexed by the standardized regression coefficients for each model, varied between the models for male and female subjects (-.22 and -.28, respectively). The model for female subjects did explain nearly twice the variance in accumulative aspirational stability than the model for male subjects (still a very meager 11 percent), suggesting that accumulative aspirational stability is somewhat more "explainable" for female subjects than males in the sample.

Discussion

This study investigated the stability of the occupational aspirations of a panel of 9,376 young adults during the six years (1980--1986) following their completion of high school. In contrast to the prevailing expectation in American society that individuals graduating from high school should possess a set of relatively specific

post-high school plans, this study found that more than half of the sample experienced marked instability in their occupational aspirations. Moreover, less than nine percent of the variability in the aspirational stability observed in all subjects could be explained by factors such as aptitude, socioeconomic status, the number of months of college attendance and military experience, self-concept, locus of control, parental and others' influences, urbanicity, and race.

Inspection of subjects' changes in occupational aspiration during this six-year period revealed only modest trends towards greater aspirational stability over time. More strikingly, various analyses of the data failed to delineate clear patterns in changes to occupational aspiration. For example, approximately 25% of the sample at each point of data collection after 1980 reported occupational goals for age 30 that demonstrated a reduction in their aspirational stability compared to the goal expressed in the prior survey; further analysis revealed that this group of individual subjects changed at each followup survey. Another example of the lack of clean patterns identified by the data is the 25 percent of subjects reporting an occupational aspiration in 1986 identical to that reported in 1980. Only half of that group reported no changes to their aspiration in the intervening years, 1982 and 1984.

These findings tend to question the theoretical notions that occupational aspiration stabilizes with the experience of maturation of youth and young adults (Chickering, 1969; Heath, 1965), and that with greater complexity in cognitive development comes increased capacities to make commitments to, among many things, occupational choices (Perry, 1970; Knefelkamp & Slepitza, 1976). Although the data did not provide opportunities to assess subjects' experience of greater maturity over

time, it would be reasonable to speculate that most subjects were substantially more mature in 1986 than they were as high school seniors in 1980, irrespective of the definition of maturity that might be used. Moreover, that presumed maturation more likely occurred gradually during the six years of the study than suddenly. In the face of this reasoning, more than half of the sample experienced marked instability of occupational aspiration alongside this presumed maturation.

Almost certainly the majority of those subjects attending college during the years 1980--1984 experienced various degrees of maturation, including greater complexity of cognitive patterning. Yet the data from this study landed another blow against the contentions of the maturationists: while the number of months of attendance in college in fact dominated the regression models constructed to explain the variability in the accumulative measure of aspirational stability, it accounted for a multiple r-square of less than .08. This modest influence of the number of months of attendance in college is far smaller than the theories of Chickering (1969), Heath (1965), and Perry (1970) would have suggested.

Short of declaring that the aspirational stability/instability observed in the sample of this study occurred in a purely random fashion, three other explanations are plausible. First, like most research involving the aspirations of youth and young adults, this study relied upon the capacity and the veracity of subjects' articulation of their occupational goals. Alexander and Cook (1979) noted that the expressed intentions of youth regarding post-high school goals often are very different from their actual intentions. Clearly, this entire study is based upon subjects' thoughtfulness and

forthrightness in their responses to the HSB questionnaire items. To the extent that such was not the case would render the findings of this study hopelessly confusing.

A second explanation of the failure of this study to account for so little of the variability in accumulative aspirational stability relates to the construction of the measure itself. While summing the aspirational scores for each of the two-year longitudinal intervals is sound at face value, the accumulative measure created in this study is no more useful than the parts it comprises. The operationalizing of aspirational stability does not possess a rich tradition from which other researchers might borrow. Studies that have investigated aspirational change have employed only dichotomous measures (i.e. change or no-change in aspiration). Although this study's use of the Holland (1973) scheme of occupational classification may have been an inventive procedure to measure aspirational change on an ordinal scale, in fact it resulted in construction of a composite variable with a coefficient of internal consistency of only .42 (Cronbach's Alpha). Indeed, the amount of variability of accumulative aspirational stability may have been attenuated by these kinds of problems in its measurement.

A third explanation, however, demands consideration. Controlling for the influence of the months of college attendance, no other independent variable in the regression models constructed in this study added <u>substantially</u> (although a few were found to be statistically significant) to the explanation of accumulative aspirational stability. Among the variables that did not make important contributions to the models were race, aptitude, socioeconomic status, self-concept, locus

of control, and urbanicity. Interestingly, this list contrasts with the number of months in attendance in college in an important way: the former are personal characteristics (relatively unchanging) and the latter suggests interaction between a certain type of environment and the subjects (relatively malleable).

Extending this explanation, aspirational stability may have far more to do with individuals' interaction with environmental changes than with a set of exogenous attributes, such as aptitude and socioeconomic status. That is, the aspirational instability observed in many subjects (that were in the main unexplained by a variety of their personal characteristics) may have been primarily a function of their adaptation to changing environmental circumstances. While not purely random, changes to their occupational goals were likely to have been due at least in part (and probably in large part) to the opportunities/lack of opportunities extant (and perceived) during the subjects' six years following completion of high school.

The results of this study underscored the mind-changing of youth with respect to their occupational aspirations, something that parents, educators, and counselors would do well to recognize. Inasmuch change in aspirations was observed, and that so little of it could be accounted for, individuals and their mentors should exercise caution in acting upon aspirations prematurely formed.

The second material finding of this study was that the data did not support Gilligan's (1982) contention that development should be conceived differently for males and for females. Had the data supported an extrapolation of her model to career development, and specifically aspirational stability, differences between male and

female subjects on the accumulative measure of aspirational stability would likely have been observed. Additionally, the regression models constructed to explain the variability in accumulative aspirational stability would have differed for male and female subjects. In fact, neither was the case.

First, mean differences on the accumulative aspirational stability between male and female subjects were not significant. Second, although independent variables identified to significantly contribute to the reduction of variance in aspirational stability differed in the regression models developed for male and female subjects, only the number of months of college attendance added substantially to both models. The remaining independent variables found significant in each model (parental influence, aptitude, and race in the model for males; aptitude and military experience in the model for females) in the aggregate contributed less than .01 to the multiple r-square. Therefore, while different independent variables added statistically to the understanding of the dependent measure in the models for male and female subjects, only college attendance contributed in a substantial way to the understanding of accumulative aspirational stability for male and female subjects.

The models for male and female subjects differed in one important way, however: the accumulative aspirational stability for female subjects was twice as "explainable" as that of male subjects. The total multiple r-square obtained in the model for females was .12, compared to .06 for the model developed for male subjects. College attendance, the primary (and only) substantial contributor to each model, contributed to .05 of the total r-squared in the model developed

for male subjects compared to a contribution of .11 in the model for female subjects.

Importantly, among those subjects in this study missing data on key variables there existed an under-representation of non-white, male subjects with less college attendance and lower aptitude and SES scores. Identification of these patterns in missing data in the study is perhaps the most serious breach to its external validity. The inescapable conclusion with respect to the generalizability of the findings of this study is vexing uncertainty. In spite of the use of a panel of 9,376 subjects from across the country as the sample for this study, the population to which the findings can be generalized confidently is not clear.

As is so often the case with research attempting to examine a construct that has been operationalized in a new way or has employed a methodology different from previous investigations, more questions are raised than answered. In this study, the stability of occupational aspiration was measured on an ordinal scale instead of the dichotomous variable used in previous research. Data were collected from a panel of subjects during the six years following completion of high school. Additionally, several variables found in previous research to be related to aspiration and the stability of aspiration were included. These features augured well for the understanding of aspirational stability/instability in young adults.

The findings of this study, however, raise probably more questions about the aspirational stability of young adults than they resolve. First, and perhaps most importantly, is the question of the consequence of aspirational stability in individuals' lives. In the most simple of

terms, is (and in what ways) the stability of occupational aspiration important? To what extent does stability of aspiration relate to attainment of goals or to individuals' experience of occupational satisfaction? The findings of this study indicated that most young adults in the sample experienced varying degrees of aspirational stability/instability. Not examined in this context was their reported occupational achievement or the levels of gratification such attainment may have involved. While aspirational instability is probably a normal developmental occurrence for young adults, particularly in view of the changing nature of the world of work in American society, high degrees of aspirational instability undoubtedly would associate with impediments to occupational attainment or, at the very least, occupational dissatisfaction.

Second, this study was unable to include a measure of subjects' emergence of greater maturity over time, thereby failing to test directly the hypotheses of the maturationists that occupational aspirations tend to stabilize with maturation. Clearly, the aspirations of young adults inevitably will experience some change as unexpected circumstances and opportunities present themselves. At the same time there may be aspects of the aspirational stability phenomenon which are "non-random," that is, due to the emergence of maturity. Similarly, the manner in which young adults face and adapt constructively to unanticipated change that impacts their aspirations is also likely to involve various dimensions of maturity. Development of a valid and reliable measure of maturation that can be examined with aspirational stability would likely provide useful answers to this set of questions.

Finally, this study concerned itself only with describing and attempting to explain the extent of aspirational stability/instability of young adults during the six years following completion of high school. It did not seek to determine patterns in the content of aspirational change. For example, to what degree did subjects alter their aspiration from high-status, relatively glamorous occupations to those with lower status? Do patterns of migration from one type of occupational aspiration to another differ between males and females, whites and non-whites, individuals from lower or higher socioeconomic groups, or between persons from rural versus urban or suburban cultures? A thorough investigation of these issues would be important to improving human resource development, and ultimately economic development, in the country.

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Table 1

Congruence Chart for Operationalizing Stability of Aspiration

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	95
1 (clerical)	0																
2 (craftsman)	2	0															
3 (farmer)	2	1	0														
4 (homemaker)	3	4	3	0													
5 (laborer)	2	1	1	4	0												
6 (manager/admin)	2	3	3	2	3	0											
7 (military)	2	2	2	2	2	2	0										
8 (operative)	2	1	1	4	1	3	2	0									
9 (professional A)	3	4	4	2	4	2	2	4	0								
10 (professional B)	3	4	4	2	4	2	2	4	1	0							
11 (owner)	2	3	3	2	3	1	3	3	2	2	0						
12 (protective)	3	4	4	1	4	2	1	4	2	2	2	0					
13 (sales)	2	3	3	2	3	1	3	3	2	2	1	2	0				
14 (teacher)	3	4	4	2	4	2	4	4	1	1	2	2	2	0			
15 (service)	3	4	4	1	4	2	2	4	2	2	2	1	2	2	0		
16 (technical)	3	2	2	3	2	3	2	2	2	2	4	3	4	3	2	0	

Table 2

Aspirational Stability Scores for the Periods 1980--1982, 1982--1984, and 1984--1986

	Score	1980--1982	1982--1984	1984--1986
(stable)	0	3,433/36.6%	3,887/41.5%	3,922/41.8%
	1	1,147/12.2%	1,163/12.4%	1,216/13.0%
	2	2,356/25.1%	2,440/26.0%	2,382/25.0%
	3	1,213/12.9%	1,102/11.8%	1,051/11.2%
(unstable)	4	547/ 5.8%	425/ 4.5%	422/ 4.5%
missing data	-	680/ 7.3%	358/ 3.8%	382/ 4.1%

Table 3

Crosstabulation of Maintenance, Stabilization, and Destabilization of Subjects' Aspirational Stability

	From 1982--1984 to 1984--1986				
From 1980--1982 to 1982--1984	No Change in Stability Scores	Increase in Stability Scores	Reduction in Stability Scores	Row Totals	
No Change in Stability Scores	1,749 (50.4)	845 (24.3)	877 (25.3)	3,471 (100%)	n (%)
Increase in Stability Scores	1,189 (44.0)	368 (13.6)	1,145 (42.4)	2,703 (100%)	n (%)
Reduction in Stability Scores	770 (35.2)	1,169 (53.4)	250 (11.4)	1,169 (100%)	n (%)
Column Totals:	3,709	2,382	2,272	8,363	

(missing cases = 1,013)

Table 4

Frequency Distribution of the Accumulative Measure of the Stability of Occupational Aspiration (1980 -- 1986)

	Score	# of Subjects	% of Sample
(stable)	0	1,191	14.2
	1	519	6.2
	2	1,291	15.4
	3	1,012	12.1
	4	1,341	16.0
	5	880	10.5
	6	938	11.2
	7	443	5.3
	8	362	4.3
	9	241	2.9
	10	99	1.2
	11	23	0.3
(unstable)	12	21	0.3

Table 5

Differences in Accumulative Aspirational Stability By Sex and Race

	# of Subjects	Mean	s	F	t Value	Two-Tail Probability
Males	4,078	3.77	2.65	1.11*	1.48	.1400
Females	4,284	3.69	2.52			
Whites	6,548	3.63	2.58	1.03	6.81	.0000
Non-Whites	1,815	4.09	2.55			

* (p = .001)

By Subjects' Urbanicity

Source	df	Sums of Squares	Mean Squares	F Ratio	F Probability
Between Groups	2	10.11	5.05	0.757	.4691
Within Groups	8,360	55,804.74	6.68		
Total	8,362	55,814.85			

Table 6

Measures of Association Between Accumulative Aspirational Stability and Selected Variables

	Pearson Product-Moment Corr. Coefficient	Spearman Rank Order Corr. Coefficient
Aptitude	-.204*	--
SES	-.134*	--
College Attendance	-.276*	--
Military Experience	+.049*	--
Self-Concept (1986)	-.049*	--
Locus of Control (1986)	-.110*	--
Parental Influence	--	-.071*
Others' Influence	--	-.008

* $p < .001$

Table 7

Summary of Simultaneous Entry of All Independent Variables

(All Subjects)

Multiple R: .290
Multiple R-Squared: .084
Standard Error: 2.47

Mean Square Regression: 329.57 (df = 11)
Mean Square Residual: 6.12 (df = 6,425)
F: 53.83 (p = .0000)

Independent Variable Summary:

Variable	Standardized Regression Coefficient	Significance of Contribution to the Model T	p
Aptitude	-.07	-4.67	.0000
SES	+.01	+0.50	.6150
College Attend.	-.23	-15.25	.0000
Military Exp.	+.01	+1.01	.3113
Self-Concept ('86)	-.01	-0.42	.6755
Locus of Cont. ('86)	-.02	-1.22	.2246
Parental Infl.	-.04	-2.96	.0031
Others' Infl.	-.09	-1.08	.2810
Urbanicity	-.00	-0.09	.9288
Race (Dummy)	-.02	-1.61	.1070

Table 8

Summary of Simultaneous Entry of All Independent Variables

(Male Subjects)

Multiple R: .250
Multiple R-Squared: .063
Standard Error: 2.57

Mean Square Regression: 123.66 (df = 11)
Mean Square Residual: 6.60 (df = 3,087)
F: 18.73 (p = .0000)

Independent Variable Summary:

Variable	Standardized Regression Coefficient	Significance of Contribution to the Model T	p
Aptitude	-.07	-2.57	.0102
SES	+.03	+1.50	.1327
College Attend.	-.18	-8.18	.0000
Military Exp.	+.05	+0.38	.7019
Self-Concept ('86)	-.05	-0.59	.5567
Locus of Cont. ('86)	-.02	-0.86	.3921
Parental Infl.	-.07	-3.53	.0004
Others' Infl.	-.14	-1.27	.2052
Urbanicity	+.01	-0.34	.7309
Race (Dummy)	-.05	-2.77	.0056

Table 9

Summary of Simultaneous Entry of All Independent Variables

(Female Subjects)

Multiple R: .345
Multiple R-Squared: .119
Standard Error: 2.37

Mean Square Regression: 228.17 (df = 11)
Mean Square Residual: 5.61 (df = 3,317)
F: 40.66 (p = .0000)

Independent Variable Summary:

Variable	Standardized Regression Coefficient	Significance of Contribution to the Model T	p
Aptitude	-.09	-4.39	.0000
SES	-.02	-0.84	.4034
College Attend.	-.27	-13.28	.0000
Military Exp.	+.03	+2.03	.0422
Self-Concept ('86)	-.00	-0.15	.8799
Locus of Cont. ('86)	-.02	-0.94	.3451
Parental Infl.	-.01	-0.46	.6493
Others' Infl.	-.00	-0.02	.9808
Urbanicity	-.01	-0.40	.6890
Race (Dummy)	+.02	+0.64	.5244